

Factors Promoting Personal Growth When Teaching Academically Diverse Classes

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Running Head: Factors Promoting Personal Growth

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Abstract

Teachers today are confronted with increasingly diverse groups of students in their classrooms. The academic diversity among these students presents a particular instructional challenge to secondary public school teachers. The daily contact teachers have with individual students is circumscribed by the structure of secondary schools where teachers see individual students usually for only one hour a day. As teachers struggle to meet the instructional needs of all their students, a number of problems arise, including the issue of teacher satisfaction and professional growth. This study explores the factors that promote teacher professional growth within the context of teaching diverse groups of secondary students.

The study was conducted as a collaborative research project with 42 secondary science and social studies teachers in two school districts in eastern Kansas. Researchers and teachers met in a series of Cooperative Study Groups (CSGs) to discuss questions related to personal growth in teaching.

Teachers indicated generally that interacting with students and seeing student success was their greatest source of satisfaction in teaching academically diverse classes. Teachers also said they appreciate (and too rarely receive) recognition and positive feedback about their teaching. They also experience personal growth when they have opportunities to participate in stimulating learning experiences and opportunities for collegial interaction. There is some indication that providing teachers with more opportunities for collegial instruction would result not only in promoting personal satisfaction in teaching but also in greater sharing of effective techniques for teaching in academically diverse classrooms.

Factors Promoting Personal Growth When Teaching Academically Diverse Classes

Introduction

Increasingly, students with disabilities are being placed in general education settings for a major part of the school day (Lovitt, 1989). The presence of these students usually adds to the diversity that teachers encounter in public school settings. This diversity increases the demands on teachers to plan for individualized instruction as well as to make appropriate instructional accommodations to meet individual students' needs (Graden, Zins, & Curtis, 1988). Although teaching academically diverse classes has been cited as a source of teacher dissatisfaction (e.g., Conley, Bacharach, & Bauer, 1989; McLaughlin, Pfeifer, Swanson-Owens & Yee, 1986), research has not explored the conditions that may enhance personal growth when teaching students in these classrooms.

The purpose of this study was to explore the factors that promote teacher growth in diverse classrooms. To provide a framework for the rationale of studying this area, the literature surrounding (a) teachers' reward structures, (b) teacher motivation and the change process, and (c) teacher efficacy will be discussed below. Additionally, a rationale for focusing the study on secondary school teachers will be developed.

As noted by Cuban (1984) and Schumaker and Deshler (1988), the curricular and structural features of secondary schools present unique challenges for teachers. Based on an analysis of classroom pedagogy in public schools, Cuban (1984) concluded that elementary and secondary schools differed markedly in (a) the complexity and amount of content students face, (b) the allocation of time for instruction, and (c) the external pressures imposed on secondary schools from outside sources. While elementary schools focus primarily on the mastery of basic skills, secondary schools emphasize acquisition of content information. The "Excellence in Education Movement" (e.g., Boyer, 1983; Carnegie Forum, 1986; Goodlad, 1984; Holmes Group, 1986; Powell, Farrar, & Cohen, 1985; The National Commission on Excellence in Education, 1983;Sizer, 1984) that gained popularity in the 1980s markedly increased expectations concerning the amount of content to be covered by secondary school teachers. As a result of "suggestions" emanating from these reports and studies, secondary school teachers are expected to be "content experts," a role that places added pressure on them for remaining current with regard to curricular content and best teaching practices.

Further adding to the challenge of teaching at the secondary level, the amount of student contact time is significantly greater for secondary teachers than it is for elementary

teachers. High school teachers see five groups of 25 or more different students for less than one hour per day, making the potential for flexibly adjusting instruction to meet individual needs, accommodate for absences, and provide additional assistance or adaptations immeasurably more difficult (Schumaker & Deshler, 1988).

Upon reviewing the literature on reward structures in schools, it seems clear that the primary motivating force for teachers is the sense of satisfaction they derive from working with students. As noted by Dedrick and Dishner (1982), to offset lack of economic income, teachers need "psychological income," defined as the personal sense of satisfaction derived from the knowledge that one is doing something significant. Coining a term similar to "psychological income," McLaughlin et al. (1986) used "psychic rewards" to refer to what teachers gain by working with students. The authors reported that "the dominant motivation and source of reward for teachers lies in promoting students' growth and development" (p. 420). This finding was based on interviews with 85 teachers (no demographic data reported).

After interviewing 35 high-school and vocational-school teachers, Kalekin-Fishman (1986) reported that the most sustaining aspect of teaching over time is the face-to-face contact teachers have with students and colleagues. A similar finding was noted by Kasten (1984) after interviewing 35 teachers and analyzing questionnaire data obtained from 139 teachers. Kasten (1984) reported that "work with students was described as the most satisfying and rewarding but also as one of the most frustrating aspects of the job" (p. 10). As would be expected, the rewarding aspect of working with students comes from "seeing" student success whereas, in contrast, frustration occurs when students demonstrate behavioral and learning problems.

Other than working with students, teachers in several studies (e.g., Kalekin-Fishman, 1986; Kasten, 1984) identified (a) small classes, (b) help with paperwork, (c) supportive administrators, (d) parent support, (e) collegial interactions, and (f) professional growth opportunities as sources of reward for them in schools. Unfortunately, opportunities for these types of rewards appear rarely (Mac-Phail-Wilcox & Hyler, 1985; McLaughlin et al., 1986).

Summarizing several studies exploring staff development and the process of teacher change, Guskey (1986) commented that teachers are motivated to engage in activities that (a) will help them have a greater impact on student learning, and (b) provide specific, concrete, and practical ideas that directly relate to the day-to-day operations of their classrooms. In support of this latter point, Doyle and Ponder (1977) suggested that teachers use three criteria to decide whether or not to adopt a proposed change: (a) the extent to which the methodology is stated clearly and specifically, (b) the extent to which

the new practice matches their philosophy of teaching, and (c) the cost (effort required) versus profit ratio. Implying that these three criteria may be "necessary but not sufficient," Fullen (1985) and Guskey (1984, 1986) noted that practices and beliefs change as a result of experiences in the classroom. From this perspective, changes in beliefs and attitudes occur only after changes in teacher practices have been demonstrated clearly to have an impact on student learning. The authors commented that traditional models of change assume that attitude change is required before teachers will "buy into" a change in practice. The "changed" belief system will supposedly then allow teachers to deal more effectively with their students.

Also addressing what is involved in the process of change, Showers, Joyce, and Bennett (1987) noted that the important components of teaching practices are cognitive. Behaviors are directed by thoughts about what to do, when to do it, and why it will have an effect. This "intellectual process" suggests that teachers are constantly making cognitive decisions resulting from interactions with students. Bolster (1983) found that teachers make an amazing number of decisions based on predictions about the probable effect of their actions on students' learning. When planning, therefore, predictions are anticipatory and based largely on beliefs acquired from previous experience. In the classroom, predictions are made more existentially through a process of giving and receiving cues. The beliefs, values, and norms that teachers have the most faith in and use most frequently to guide their instructional behavior are those consistent with predictions that have "worked" in the complex and demanding classroom arena. The author added that this type of knowledge is very resistant to change.

Given the findings that (a) the predominant motivating source for teachers is working with students and (b) teachers need to see student change as a result of teacher practices before they will "buy into" a new teaching strategy, research surrounding teacher efficacy should also be examined. Based on Bandura's (1977) social-learning theory of self-efficacy, several educational research studies (Ashton & Webb, 1986; Gibson & Dembo, 1984; Woolfolk & Hoy, 1990) have identified two efficacy factors related to teaching. "Teaching efficacy" refers to "teachers' . . . beliefs about the ability of teachers [in general] to produce student learning in spite of obstacles, like students' ability or home environment" (Woolfolk & Hoy, 1990, p. 144). The authors added that "personal teaching efficacy" refers to individual teachers' "perceived sense of effectiveness as a teacher" (p. 144). Related to diversity, personal teaching efficacy refers to whether or not teachers feel they have the skills and knowledge to teach academically diverse classes. The importance of these variables to research on academic diversity was made evident by Smylie (1988), who found that concentration of low-achieving students had a negative impact on personal

teaching efficacy, whereas the belief that teachers possessed adequate teaching strategies had a positive impact on personal teaching efficacy. These results suggest that teachers' perceptions and beliefs about their own practices are the most significant predictors of individual change. Further the lower the achievement level of students in the class, the less teachers believe they can affect student learning, despite the confidence they may have in their knowledge and skills related to teaching. This latter scenario would depict teachers low in general teaching efficacy and high in personal teaching efficacy.

This literature review suggests the following regarding teacher growth: Teachers develop belief systems guiding instructional behavior that are based on previous experience in the classroom. In reference to change, the most important belief system (and the most rewarding aspect of their job) concerns teachers' perceived ability to have an impact on student learning, given their arsenal of teaching strategies (perceived sense of personal teaching efficacy). Consequently teachers are more motivated to change current practices if learning opportunities (a) allow them to have a greater impact on student learning, (b) provide specific, concrete, and practical ideas that directly relate to day-to-day operations in their classroom, (c) match their philosophy of teaching, and (d) have a low-cost (effort required) versus profit (change in student learning) ratio. Given the multitude of demands placed on teachers at the secondary level, these conditions for growth may be especially difficult to meet.

Method

Cooperative Study Group Methodology

To gain a better understanding of the complex nature of teacher growth at the secondary level, a dynamic approach to research, which involves a collaborative relationship between teachers and researchers, was conceptualized. This approach is consistent with the growing recognition by educational researchers and reformers that "improvements in educational quality . . . require working through teachers rather than around them" (Porter & Brophy, 1988, p. 74). It is also consistent with the spirit of educational reform recommendations made by such national research and advocacy groups as the Carnegie Foundation for the Advancement of Teaching, the Coalition of Essential Schools, the National Network for Educational Renewal, and the Rand Center for the Study of the Teaching Profession.

The cooperative approach is based on the following assumptions: (a) the quality of instructional practices is greatly enhanced when teachers are allowed and encouraged to be collaborators in the research and development process; (b) teachers' knowledge about their content areas and about the students in their classrooms provides critical insights over

time; and (c) only teachers who want to change and desire to be active agents in the change process are likely to change.

A major vehicle for carrying out this research process was "Cooperative Study Groups." Cooperative Study Groups (CSGs) have served as the basis for identifying issues and barriers surrounding various teaching activities, including factors that promote growth. Termed "qualitative research," the methodology involves asking teachers to come together in small-group sessions to talk about their teaching-related experiences (positive and negative).

The remainder of this paper presents the methodology used to gather data through the cooperative research process about factors related to teaching students in academically diverse classes. In addition, the methodology used to gather information about factors promoting personal growth will be described.

Subjects

Cooperative research subjects. Prior to selecting teachers to participate in the study, an invitation to become involved in the cooperative research project (a 4-year ongoing commitment) was sent to 308 secondary social studies and science teachers. This number represented all teachers for these subjects in grades six through twelve in two school districts in eastern Kansas. The Cooperative Venture was described as an investigation to determine methods for planning and teaching academically diverse groups of students. Fifty-two teachers volunteered to participate in the initial creation of the CSGs. For 51 of the 52 teachers for whom demographic data was collected, 25 were men, and 26 were women. Their mean age was 46 years (range=31-63 years), and they had taught for an average of 20 years (range=1-36 years; $SD=8$ years). Twenty-six of the teachers taught science, 25 taught social studies/history at the secondary level. Further, 20 were teaching at the junior high/middle-school level, and 31 were teaching at the high-school level. Four of the teachers held part-time positions (e.g., taught 1-3 classes per day), whereas the remaining teachers held full-time positions. The teachers were teaching an average of 4.66 classes per day with a total average student enrollment of 107. Participants averaged two class preparations per day (range=1-4) and had one class period for planning within the school day. They reported that an average of 5.7% of the students enrolled in their classes were students with learning disabilities (LD). This percentage represents an estimate by teachers and is not necessarily an accurate representation of the number of students identified as LD according to state criteria. Additionally, the teachers reported that an average of 11% of their students could be considered at-risk for failure in school.

Personal growth study subjects. Forty-two teachers participated in the study to address issues surrounding personal growth. Based upon knowledge gained from previous CSGs that middle-school teachers felt uncomfortable when mixed in with groups of high-school teachers, seven study groups were formed in which an attempt was made to group middle and high school teachers separately. This proved feasible for four groups: two high-school science groups ($N_s=8$ and 8), one high-school social studies group ($N=8$), and one group of six middle-school science teachers and one middle-school social studies teacher ($N=7$). The remaining three groups included one with two high-school and two middle-school social studies teachers ($N=4$), one with two middle-school social studies teachers and one high-school science teacher ($N=3$), and one with two middle-school social studies teachers, one middle-school science teacher and one high-school science teacher ($N=4$). Group assignment was based on geographic location and compatibility of after-school schedules. Participants were paid \$10 at the end of each meeting for their participation.

Data Collection Format

All cooperative study groups. Prior to employing the CSG format with teachers volunteering to commit their time over several years, a methodology was created via (a) an extensive literature review of qualitative research, and (b) consultation with a nationally-known expert in teacher research and growth (Dr. Christopher Clark at Michigan State University). The CSG methodology involves having a moderator ask predetermined questions centering around a theme (e.g., professional growth). Following presentation of the initial question, the moderator facilitates discussion among teachers and clarifies and summarizes their comments when needed. The moderator can also choose to ask follow-up questions where necessary. The rest of the research team consists of a note taker and a recorder assistant. The note taker's task is to capture the essence of the discussion, as well as to note nonverbal behaviors that could not be captured by a tape recorder (e.g., nodding head in agreement to another subject's response; interest shown in discussions). Within a week after a CSG meeting, the note taker typed notes into a computer and listened to the audio tape of the discussion to ensure correct interpretation of comments. The recorder assistant's task was to tape the discussions, handle any paperwork generated by paper-and-pencil measures employed, and act as host/hostess for the group of teachers. The methodology resulted from a pilot study conducted with four teachers in a local school district that was not participating in the Cooperative Research Process. Following the pilot study, the procedures for conducting the CSGs were expressed in writing. Three project staff members were trained as moderators. Additionally, six research assistants were

trained as note takers and recorder assistants. The duties and responsibilities of note takers and recorder assistants were specified in writing.

Personal growth CSG. To address the issue of factors related to personal growth, each of the seven groups of teachers met once after school at a district administrative building. The following questions were posed to the groups:

1. What are the biggest factors related to promoting personal growth in teaching given the demands of teaching in the face of academic diversity?
2. What are the biggest factors related to inhibiting personal growth in teaching given the demands of teaching in the face of academic diversity?
3. What are the key characteristics of an effort that would effectively enhance your personal growth in teaching?
4. What are the characteristics of "good" collegiality?

Due to varying amounts of discussion in the groups, not all the questions could be addressed. All seven groups discussed the first two questions. The third question was addressed by five groups. Two groups did not address the third question. The fourth question was addressed by six groups and question four by all but one group.

Within a week after these meetings, audio tapes and raw notes were transcribed and entered into a computer. For each group, summary statements of responses to the CSG questions were compiled. These summary statements, "Member Checks," were presented to the groups in a future meeting. Teachers were then asked to indicate for each item the degree to which the statement was true for them on a 7-point Likert-type scale (ranging from 1 - "Strongly Agree" to 7 - "Strongly Disagree"). Because six teachers met with a different group than the original one, they expressed their degree of agreement with summary statements generated in CSGs other than the one they had previously attended. Additionally, one set of member checks was not turned in.

Data analysis procedures.

The data derived from these meetings were analyzed using two methods: (a) a transcript evaluation process, and (b) a quantitative analysis of "member check" data. For the transcript evaluation, the audio tapes of the meeting, the notes from the research assistant, and the moderator's notes were used to create a transcript of the meeting. These transcripts were used to interpret the meaning of items generated through the Member Check process and to identify themes and trends in the data that were not apparent from the Member Check results. The transcripts were read and major impressions were summarized

by two independent readers who had participated in the CSG meetings. These impressions were synthesized, and a set of summary statements was generated.

The responses generated through the Member Check process were compiled through sorting and grouping. After all meetings had been held, the research staff put each of the teachers' listed responses on a card and identified major categories and subcategories for each question. Project staff then sorted responses for each question into the categories and subcategories. In order to determine the reliability of the sorting, two additional researchers independently sorted all responses. Their card placements were compared item by item to the staff's original assignment of responses to categories and subcategories. In order to be scored as an agreement, a response had to be assigned to the same category and subcategory by both sorters. The number of agreements was divided by the number of agreements plus disagreements and multiplied by 100 to obtain the percentage of agreement.

Since the teachers had indicated on the Member Check forms their level of personal agreement with each item generated within their group in response to each question, it was possible to determine the relative agreement between the group-generated Member Check items and an individual teacher's viewpoint. Given the nature of the data - Member Check items not being commensurate across groups - a method of determining within-group agreement, or the homogeneity of attitudes toward stated Member Check items within each group was attempted. An index of homogeneity was calculated for each respondent under each question by first taking the standard deviation of their responses to the Member Check items under each question and finding the reciprocal of this value. To determine the degree to which groups were in consensus on each question, the standard deviation of the homogeneity indexes for each respondent was calculated. This was done for each of the four questions.

The Member Check ratings also allowed calculation of the relative level of agreement of the teachers to the pooled items that the research staff had included in each of the subcategories. In order to obtain this level of agreement, the numerical ratings of all the items that were assigned to a specific subcategory were totaled and divided by the number of teachers who had ranked those items in that subcategory. Thus, those responses having an average rating close to "1" showed that the teachers agreed with the responses (e.g., it held personal meaning for them), whereas responses with average ratings closer to "7" showed that the teachers did not agree with the response (e.g., it did not hold personal meaning for them).

Question 1 Results: What are the biggest factors related to promoting personal growth in teaching given the demands of teaching in the face of academic diversity?

As noted, all seven groups responded to the professional growth question asking them to indicate factors that promote growth when teaching academically diverse classes. The groups generated 100 different Member Check items. These items were sorted into major categories and subcategories by two independent raters ($r=.80$ and $r=.75$). The two coefficients indicate the degree of agreement between each rater and the pre-existing placements made by the staff who developed the categorizing schemes. Thirty-one items were placed in two categories and subcategories by staff developing the categories. For example, "Seeing social skills develop in students" was placed in both the "Positive Interactions of Students" and "Student Personal Growth and Development" subcategories of one of the four major categories--"Student Issues." These duplications led to a total of 131 items in all categories for this question.

Four major categories and 15 subcategories were developed for this question: (a) **System/Administrative Issues**, or items related to the organizational or structural patterns in schools and network of support for students' growth and development; (b) **Student-Centered Issues**, or items related to the characteristics, actions, or attitudes of students; (c) **Instructional/Teacher Issues**, or items related to providing instruction, managing time and resources, being creative, teacher satisfaction, and interacting with students; and (d) **Professional Issues**, or items related to teacher learning and collegial relations.

As noted, two types of results are available for each CSG question: (a) Member Check results, and (b) Transcript Analysis results. The results of the Member Check process will be presented in terms of (a) the categories and subcategories of responses discussed, (b) the number of items included in each subcategory, (c) the number of groups discussing items related to the subcategory, and (d) the level of agreement of the teachers to the pooled items in each subcategory. The results of the transcript analysis will be presented as subjective conclusions based on the CSG process and members' responses to the content discussed within the CSG framework. These conclusions will be discussed generally and in terms of the dynamics and focus of the discussions in each of the seven groups.

Member check analysis. Table 1 summarizes the Member Check information for the question: "What are the biggest factors related to promoting personal growth in teaching given the demands of teaching in the face of academic diversity?" The most frequently

mentioned factors fell in the major category of "Instructional/Teacher Issues." In all seven groups, teachers mentioned being recognized and receiving positive strokes from others as a factor promoting growth.

Table 1

CSG Member Check Results for Question 1: Factors Promoting Personal Growth When Teaching Academically Diverse Classes

Response Categories/Subcategories	No. of Items	No. of Groups (N = 7)	Mean Agreement Rating*
System/Administrative Issues			
Flexible and Supportive Administrators and other Personnel	4	2	2.26
Support Network for Students' Growth and Development	5	3	2.49
Student Issues			
Positive Interactions of Students	5	3	1.82
Student Success, Interest, and Involvement in Learning	22	6	1.90
Student Growth and Development	4	3	1.59
Instructional/Teacher Issues			
Organization and Management of Time/Makeup of Classroom	7	5	3.60
Care/Concern for Students	3	2	1.67
Mutual Goals and Respect among Students and Teachers	9	6	1.94
Recognition/Feedback from Others	19	7	2.14
Teacher Flexibility	1	1	1.86
Teacher Satisfaction	18	6	2.16
Innovative Teaching Ideas That Work	3	2	1.57
Professional Issues			
Stimulating Learning Experiences	11	4	2.06
Teacher Collegial Involvement	7	3	1.79
Personal Growth and Professional Development of Teacher	13	4	2.31

*(7 = Low Agreement; 1 = High Agreement)

In six of the seven groups, teachers described interactions with students as factors promoting growth. For example, teachers indicated that seeing the effects of good teacher-student rapport (e.g., better class discussions, working with students outside of class, atmosphere of respect) was important for growth (nine of the 131 items). Teachers also indicated that feeling satisfied with their teaching efforts (e.g., trying new things and seeing success, seeing a plan come together, success with individual students) promoted personal growth (18 of the 131 items). In a related vein, but falling under the major category of "Student-Centered Issues," six of the seven groups indicated that seeing student success, interest, and involvement in learning promoted their growth. Twenty-two of the 131 total items for this question were related to this subcategory alone.

In five of the seven groups, falling under the major category of "Instructional/Teacher Issues," teachers identified personal organization and classroom makeup as factors that promote growth (seven of the 131 total items). Also, having time to organize and plan was cited as important for growth, as was teaching less diverse classes. Under the major category of "Professional Issues," teachers in four of the seven groups made statements dealing with opportunities to become involved in stimulating learning experiences (e.g., good classes and workshops, inspirational books, gaining insight by taking students' perspectives) as factors that promote growth. These statements were placed in two subcategories and comprised 24 of the 131 total items.

Interestingly, only three of the seven groups brought up items related to "System/Administrative Issues." The nine items generated by these three groups dealt with having flexible and supportive administrators and a network of professionals to guide student growth and development.

As indicated by Table 1, for the most part teachers were very much in agreement that the items generated by this question applied to them (e.g., 14 of the 15 subcategory mean agreement ratings were below 3.0, and eight of the 15 means were below 2.0). For the Member Check process, a rating of 1 indicated that an item generated by a particular CSG was "Very True" for teachers in the group; a rating of 7 indicated that it was "Not True" for them.

Transcript analysis and description of individual cooperative study groups. Group 1, containing eight high school social studies teachers, generated 23 of the 131 total items. Four of the four major categories were represented. Eight of the 15 subcategories within these major ones were also represented. After initial presentation of the question, there was little moderator involvement in this group. All members commented specifically on the question, and the group generally stuck to the task of identifying factors

that promote growth. The teachers questioned each other about responses and encouraged colleagues to share what they do in the classroom. The only "negative" comments came primarily from one teacher who expressed dissatisfaction with (a) the absence of lateral sharing of ideas among teachers, and (b) the low level of interest on the part of teachers in some of the inservices "chosen" for them by the administration. An analysis of response content for this group indicated that opportunities to engage in collegial exchanges are important for growth when teaching academically diverse classes. Also very important for growth in this group was seeing students be successful and enthusiastic, especially when they had seemed hard to reach before. Other factors promoting growth for this group included (a) learning opportunities (from college courses, workshops, and colleagues), and (b) satisfaction gained from a teaching-learning interaction that "clicks."

Group 2, containing eight high school science teachers, generated 23 of the 131 total items. All four of the major categories were represented, as were 10 of the 15 subcategories. The moderator was more active in this group, as participants sometimes drifted from the presented question. Although all members did comment on the question, two of the nine participants were passive, making only one or two statements. In addition, the teachers did not converse with each other very much and most responses were directed to the moderator. With the exception of expressions of concern that teachers do not share experiences and that computers assign students to classes without regard for individual personalities, comments were essentially positive. Most important for personal growth for this group was "seeing the light bulb come on" in students. Also important was having former students come back and tell them that they made a difference or even just seeing former students pursuing successful careers. Opportunities to engage in collegial interactions seemed to be of secondary importance as a factor promoting growth. Other factors promoting growth for this group were (a) "performing" and seeing it hold students' interest, and (b) receiving information from support personnel and other teachers about students needing "more" help.

Group 3, containing two middle school social studies teachers and two high school social studies teachers, generated 17 of the 131 total items. All four of the major categories were represented, as were 11 of the 15 subcategories. There was very little moderator involvement in this group as teachers engaged each other in dialogue. All participants addressed the question; one teacher made only one comment during the discussion, but other participants were more extensively involved. Two of the five teachers supplied detailed classroom examples of experiences to support their statements. At one point, the discussion shifted to a negative emphasis. Teachers indicated that administrative factors hampered their professional growth. One teacher specifically stated that a "rigid" administration made

growth very difficult. Other "complaints" included (a) no administration-provided time to meet with colleagues, (b) no office space to plan, and (c) sharing classrooms and therefore not being able to set up activities before class. The two most important factors promoting growth for this group were (a) seeing student success when teachers took risks, and (b) opportunities to share and interact with colleagues. Implied, but not directly stated as a factor promoting growth, was the presence of caring and supportive administrators.

Group 4, containing six middle-school science teachers and one high-school social studies teacher, generated 24 of the 131 total items across three of the four major categories and nine of the 15 subcategories. There was a great deal of moderator involvement in this group, primarily in the form of summarizing statements. All participants addressed the question and were actively involved in discussions. Indeed, members "fed off" of each others' comments and often expanded statements. The predominant factor promoting growth for this group was receiving positive strokes from parents, students, and other teachers. Seeing students succeed was also seen as a factor promoting growth, as was taking risks and creating new activities to meet students' diverse needs.

Group 5, containing eight high-school science teachers, generated 14 of the 131 total items across two of the four major categories and five of the 15 subcategories. Beyond presenting the initial question, moderator involvement was limited to a few summary statements and one statement attempting to refocus the group. Although all members took part in discussions, only three of the six members were actively involved. Interestingly, with the exception of one "active" member, the three teachers who dominated the discussions failed to specifically address the question and suggest factors promoting personal growth. One teacher noted that growth occurred when she specifically made a plan to address the needs of struggling students. Two teachers noted that seeing a student succeed promoted growth. These comments came early in the discussion. The majority of the discussion was focused on a factor that makes growth difficult--student motivation. Teachers noted that both low- and high-achieving students want to be "spoon-fed." Teachers speculated that the source of the problem might be (a) teachers in the past who spoon-fed students, and (b) students' emotional problems being too great.

Group 6, containing two junior high social studies teachers and one high school science teacher generated 13 of the total 131 items across two of the four major categories and six of the 15 subcategories. Beyond presentation of the initial question, moderator involvement consisted of asking a few clarifying questions. All members responded to the question and provided several factors that promote their growth. For this group, the major factor promoting growth was seeing student success (e.g., "seeing a light bulb come on," seeing cooperative groups work well). Other factors important for growth included (a)

seeing things work, (b) seeing "good" discussions evolve from the diversity, and (c) being able to interact with students. One teacher reported that "being and feeling" organized promoted personal growth.

Group 7, containing one junior-high science teacher and one high school science teacher and two junior-high social studies teachers, generated 17 of the 131 total items across three of the four major categories and eight of the 15 subcategories. There was a great deal of moderator involvement in this group, primarily in the form of making clarifying and summarizing statements. All members were actively involved in the discussion and specifically addressed the question. The predominant factor promoting growth for this group was receiving feedback from students (e.g., students commenting that a teacher "helped" them, students asking thought-provoking questions). Getting to know and interact with students outside of class was also cited as important for growth, as was "learning" (e.g., gaining insights from students, attending "good" workshops).

Within-group agreement results. Based on the indexes of homogeneity of attitudes toward listed Member Check items within each group, the groups can be divided into three categories: most consistent, moderately consistent and nonconsistent. Table 2 lists the within-group agreement results for the groups with more than one participant. Values are to be interpreted in the same manner as standard deviations, that is, low values indicate less variation and more agreement, whereas high values indicate more variation and less agreement.

Table 2

Standard Deviations for Homogeneity Indexes for Cooperative Study Group Question #2.1

Group	Question 1
Group 1	.46
Group 2	.60
Group 3	.23
Group 4	.44
Group 5	.29
Group 6	.17
Group 7	.63

Inspection of the statistics indicates that groups # 3, 5, and 6 demonstrate the greatest degree of consensus, with low variability in members' indexes. Groups # 1 and 4 had moderate consensus, while Groups # 2 and 7 were nonconsistent, having the least degree of consensus.

Discussion

Engaging teachers in a Cooperative Research Process yielded a great deal of information about the factors promoting personal growth when working with students in academically diverse classrooms. Supplementing the quantitative data obtained from Member Check surveys, analyses of transcripts provided a wealth of qualitative data (e.g., specific classroom examples, "strength" of statements) that offer a foundation for future research with teachers.

With few exceptions, the information from the Member Check process and the transcript analyses yielded similar results about the factors promoting personal growth for the teachers in the present study. In both types of analyses, four factors related to working with students came up consistently in most groups: (a) seeing student success, (b) receiving positive strokes from students and others, (c) taking risks by trying new things and seeing students succeed and become interested in learning, and (d) interacting with students both in and out of the classroom. Having opportunities to interact with colleagues was also viewed by many as an important growth factor, as was having opportunities to learn from college courses, workshops, colleagues, and students.

Working with Students

In general, the Cooperative Study results are very consistent with the findings of researchers who have explored what teachers find rewarding based on a traditional (survey or interview) research paradigm (e.g., Kalekin-Fishman, 1986; Kasten, 1984; McLaughlin et. al., 1986). In a survey and interviews of elementary school teachers, Kasten's (1984) study of reward structures in schools utilized teachers who had careers in teaching of a duration (mean years of experience = 14) similar to the teachers in the present study (mean = 20 years). The teachers in Kasten's study cited working with students as the number one source of daily satisfaction with teaching.

Kalekin-Fishman (1986) interviewed teachers across grades, including 25 high-school teachers, and found that across varying years of teaching experience (novice to 16+years), the single most sustaining aspect of teaching over time is the face-to-face contact with students and colleagues. In the Kasten study, teachers cited informal discussion with colleagues as the "best" source for ideas about teaching. McLaughlin et al. (1986),

summarizing findings from several of their studies, found that "the dominant motivation and source of reward for teachers lies in promoting students' growth and development" (p. 420).

Seeing student success. In the present study, the factors cited by teachers as promoting growth were very student-oriented. Seeing students succeed seemed to be the dominant growth theme, as manifested in several ways. For example, several teachers described the "mystical" or "aha" moments of student comprehension as sources of motivation to grow. Specifically in reference to academic diversity, one teacher reported that "seeing them [students] explain things to each other . . . in cooperative or other types of groups is really very rewarding." She added that "it's not always the top kid explaining to the lower one, but vice versa too."

In many cases, teachers reported that they had to wait a long time to find out that they were successful with particular students. Several teachers reported that it is very rewarding when a past student comes up to them years after they took the course and thanks them. One teacher stated that "if someone comes in and says, 'good,' I'll try a little more." Opportunities to interact with students was also cited as very rewarding for this group of teachers. As a specific factor promoting growth, one teacher stated that "it has to do with the kids. It's almost a symbiotic relationship. You know by the way it feels when it clicks. It's exciting." Another teacher cited "opportunities to be engaged with my students out of the classroom" as a factor promoting growth, adding that it is rewarding "to be away from the classroom and see students utilize practical stuff you teach."

Taking risks. In a related vein, a number of teachers in the present study reported that trying new things with students and seeing success promotes personal growth in teaching. As reported by one teacher, "when you do something different, it gives some kids a chance to succeed who usually don't." Another teacher reported that with academically diverse groups, he has to try very innovative things. In his words, "it scares me, but kids come through. I had one kid grab me around the cheeks and tell me to sit down and relax. I worry, but I've never been let down." Another teacher stated that "anything you can do to enrich your program for your students . . . [is] also enriching for you." Some of the teachers appeared to struggle with the responsibility for student learning, as reflected in the following statement: "There are some days it [a lesson] didn't work at all. But in general, I know I am effective. I have the anticipation that what I'm doing is generally right and then try to 'turn on' more kids." Quickly changing gears, however, the teacher added

that "we had to turn in failures [failure notices] today. There are some kids I haven't reached."

These comments support the efficacy research of Ashton and her colleagues (Ashton, Webb, & Doda, 1983). After observing behaviors that differentiated high-efficacy from low-efficacy teachers, Ashton et al. (1983) found that high-efficacy teachers (a) were confident that they can influence student learning, (b) expected students to succeed, (c) examine their own performance when students fail, and (d) viewed the teaching-learning process as a joint venture to achieve shared goals. In reference to expectations and responsibility, Brophy and Evertson (1977) found that teachers who were successful in producing student learning tended to have higher expectations and to assume personal responsibility for student learning.

Collegial Interactions

Engaging in collegial interactions was also identified by many of the teachers as important to personal growth. This seems especially logical when working with academically diverse classes, given Kasten's (1984) finding that teachers view informal discussion with colleagues as the "best" source for ideas about teaching. One of the teachers in the present study stated: "I like the collegial feelings I get with the department and the give-and-take during lunch. Somebody has tried something, and it has worked, or it bombed, and they shared that." Another teacher described colleagues as "sounding boards," "humor models," and a "support base." However, teachers were very much in agreement that opportunities to meet with colleagues, although identified as promoting growth, are too infrequent. One teacher said, "I don't see nearly as much lateral sharing as there is potential for doing. I think reality is that as teachers we have an incredibly autonomous kind of activity; we are not getting out there and sharing as much as we could. There's not a lot of incentive to share." This latter finding is consistent with existing research. For example, McLaughlin et al. (1986) interviewed 85 teachers and found that teachers rated "isolation" very high as a source of dissatisfaction with teaching. Identified as contributing greatly to this sense of isolation was lack of interaction and collegial support from colleagues. In a survey of 365 elementary and secondary teachers, Farber (1984) found that 42% of the teachers reported "frequent" rewarding collegial interactions. Twenty five percent of the teachers reported that they rarely or never have contact with colleagues. Interestingly, 61% of the teachers in Farber's study felt that there was not a sense of community in their school. Although teachers in the present study did not specifically address sense-of-community issues, some of the groups did temporarily shift discussions to issues of administrative factors that inhibit growth and feelings of community. One teacher,

for example, stated that "the rigidity of the administration . . . makes it [growth] so difficult."

Learning Opportunities

Opportunities to learn were also identified by teachers in the present study as promoting personal growth. One participant reported that it is the "occasional discovery of a good book" that provides the inspiration to grow. Another teacher stated: "I prefer workshops that present ways to teach. I need ways to motivate students rather than more subject knowledge." Another teacher said, "I like the [workshops] that present information I can transfer to the classroom." Opting for a variation of traditional inservices that fits with teachers' feelings about the importance of collegiality, one teacher stated the following: "I love the days when we have an inservice and you have time to organize your mind and talk to other people. On snow days, I wish they'd let the kids out but have us come in at 10:00 a.m. We could work together, then go out to lunch together, with no specific plan for inservice." With several teachers enthusiastically nodding their heads in agreement, one teacher said, "I think teachers are born students. We like to learn. We're always strong, whether we're reading the newspaper, listening to the radio, talking to a friend, or teaching World [Geography]. Everything applies."

Summary

A number of important issues about teacher change emerge from the preceding discussion. It almost appears as if teachers liked the challenge that diversity presents to them, as it forces them to come up with innovative ways of teaching to reach some of these students. Through this process, they believe all students will benefit. Unfortunately, a lot of the good "innovations" that teachers come up with are never shared. A wealth of expertise in all schools is not being tapped. Teachers find that opportunities to interact with colleagues are very rewarding but too infrequent. Related to staff development, teachers in the present study preferred to learn strategies and techniques that will help students learn the content, rather than inservices and workshops that are theoretical and have limited day-to-day application. However, this finding may be different with a less experienced group of teachers than those participating in the present study. Much to the credit of all teachers and, in particular, the teachers in this study, what seems to truly motivate them is face-to-face interaction with students -- being able to get to know them and make a difference in their lives.

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